WHAT IS CLAIMED IS:

1. A method for facilitating multicasting of a file to a plurality of end users, comprising:

multicasting control service information for reception by a plurality of end user download devices;

receiving a plurality of requests for reception of offered content designated in said control service information, wherein said requests are received from a group of said end user download devices; and

multicasting said offered content for reception by each one of said end user download devices in the group;

wherein a multicast-capable distribution network facilitates multicasting of said control service information, facilitates receiving said requests for reception and facilitates multicasting said offered content.

2. The method of claim 1 wherein multicasting control service information includes:

receiving said control service information initially transmitted from a centralized control apparatus;

generating replicated versions of said control service information, wherein said replicated versions are generated by the multicast-capable distribution network; and

forwarding said replicated versions of said control service information for reception by each one of the group of said end user download devices.

3. The method of claim 2 wherein receiving said control service information from the centralized control apparatus includes receiving an unsolicited advertisement of said control service information from the centralized control apparatus.

4. The method of claim 2, further comprising:

configuring the multicast-capable distribution network to route said control service information by downstream apparatuses within the multi-cast capable network in response to receiving said control service information.

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1   5. The method of claim 4 wherein configuring the multicast-capable distribution network
2   includes being statically configured for routing said control service information along pre-
3   defined paths within the multi-cast capable distribution network.

1   6. The method of claim 4 wherein configuring the multicast-capable distribution network
2   includes being configured for dynamically enabling access to said control service
3   information by downstream apparatuses within the multi-cast capable network.

1   7. The method of claim 1 wherein receiving the plurality of requests for reception of a file
2   designated in said control service information includes receiving said requests within a
3   prescribed interval of time.

1   8. The method of claim 7 wherein the prescribed interval of time begins at a designated time
2   and extends for a designated duration.

1   9. The method of claim 7 wherein receiving the plurality of requests for reception of a file
2   designated in said control service information includes facilitating synchronization of the
3   group of said end user download devices for enabling reception of said requests by the
4   multicast-capable distribution network within the prescribed interval of time.

1   10. The method of claim 9 wherein facilitating synchronization of the group of said end user
2   download devices includes
3   synchronizing a clock of each one of said end user download devices with a reference
4   time maintained by the multicast-capable distribution network; and
5   synchronizing a clock of a multicast server apparatus with the reference time
6   maintained by the multicast-capable distribution network.

1   11. The method of claim 1, further comprising:
2   facilitating synchronization of the group of said end user download devices for
3   enabling reception of said requests by the multicast-capable distribution network
4   within a prescribed interval of time.

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1 12. The method of claim 11 wherein:

2   receiving the plurality of requests for reception of a file designated in said control

3   service information includes receiving said requests within the prescribed interval

4   of time; and

5   the prescribed interval of time beginning at a designated time and extending for a

6   designated duration.

1 13. The method of claim 1 wherein:

2   the multicast-capable distribution network is an Internet Protocol (IP) based

3   distribution network; and

4   receiving the plurality of requests for reception includes receiving an Internet Group

5   Management Protocol IGMP membership report from each one of the group of

6   said end user download devices.

1 14. The method of claim 13, further comprising:

2   receiving said control service information from a centralized control apparatus in

3   response to receiving the IGMP membership report from each one of the group of

4   said end user download devices.

1 15. The method of claim 1 wherein multicasting said offered content includes:

2   receiving an initially transmitted copy of said offered content from a centralized

3   control apparatus;

4   generating replicated versions of said offered content, wherein said replicated versions

5   are generated by the multicast-capable distribution network; and

6   forwarding said replicated versions of said offered content for reception by each one

7   of the group of said end user download devices.

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1   16. A method for facilitating multicasting of a file to a plurality of end users, comprising:

2   multicasting control service information for reception by a plurality of end user

3   download devices, wherein multicasting said control service information includes

4   receiving said control service information initially transmitted from a centralized

5   control apparatus, generating replicated versions of said control service

6   information by a multicast-capable distribution network and forwarding said

7   replicated versions of said control service information for reception by each one of

8   the group of said end user download devices;

9   configuring the multicast-capable distribution network to route said control service

10   information by downstream apparatuses within the multi-cast capable network in

11   response to receiving said control service information;

12   receiving a plurality of requests for reception of offered content designated in said

13   control service information, wherein said requests are received from a group of

14   said end user download devices, wherein said requests are received within a

15   prescribed interval of time; and

16   multicasting said offered content for reception by each one of said end user download

17   devices in the group;

18   wherein a multicast-capable distribution network facilitates multicasting of said

19   control service information, facilitates receiving said requests for reception and

20   facilitates multicasting said offered content.

1   17. The method of claim 16 wherein receiving said control service information from the

2   centralized control apparatus includes receiving an unsolicited advertisement of said

3   control service information from the centralized control apparatus.

1   18. The method of claim 16 wherein configuring the multicast-capable distribution network

2   includes being statically configured for routing said control service information along pre-

3   defined paths within the multi-cast capable distribution network.

1   19. The method of claim 16 wherein configuring the multicast-capable distribution network

2   includes being configured for dynamically enabling access to said control service

3   information by downstream apparatuses within the multi-cast capable network.

1   20. The method of claim 16 wherein the prescribed interval of time begins at a designated

2   time and extends for a designated duration.

1   21. The method of claim 20 wherein receiving the plurality of requests for reception of a file

2   designated in said control service information includes facilitating synchronization of the

3   group of said end user download devices for enabling reception of said requests by the

4   multicast-capable distribution network within the prescribed interval of time.

1   22. The method of claim 21 wherein facilitating synchronization of the group of said end user

2   download devices includes:

3   synchronizing a clock of each one of said end user download devices with a reference

4   time maintained by the multicast-capable distribution network; and

5   synchronizing a clock of a multicast server apparatus with the reference time

6   maintained by the multicast-capable distribution network.

1   23. The method of claim 16, further comprising:

2   facilitating synchronization of the group of said end user download devices for

3   enabling reception of said requests by the multicast-capable distribution network

4   within a prescribed interval of time.

1   24. The method of claim 23 wherein:

2   receiving the plurality of requests for reception of a file designated in said control

3   service information includes receiving said requests within the prescribed interval

4   of time; and

5   the prescribed interval of time beginning at a designated time and extending for a

6   designated duration.

1   25. The method of claim 16 wherein multicasting said offered content includes:

2   receiving an initially transmitted copy of said offered content from a centralized

3   control apparatus;

4   generating replicated versions of said offered content, wherein said replicated versions

5   are generated by the multicast-capable distribution network; and

6   forwarding said replicated versions of said offered content for reception by each one

7   of the group of said end user download devices.

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1 26. A system for facilitating multicasting of a file to a plurality of end users, comprising:

2   a multicast-capable distribution network;

3   a centralized server coupled to the multicast-capable distribution network;

4   a plurality of end use download devices coupled to the multicast-capable

5   distribution network; and

6   a data processor program;

7   the data processor program being capable of enabling the multicast-capable

8   distribution network to facilitate:

9   multicasting control service information for reception by the plurality

10   of end user download devices;

11   receiving a plurality of requests for reception of offered content

12   designated in said control service information, wherein said

13   requests are received from a group of said end user download

14   devices; and

15   multicasting said offered content for reception by each one of said end

16   user download devices in the group.

1 27. The system of claim 26 wherein enabling the multicast-capable distribution network to

2   facilitate multicasting control service information includes enabling the multicast-capable

3   distribution network to facilitate:

4   receiving said control service information initially transmitted from a centralized

5   control apparatus;

6   generating replicated versions of said control service information, wherein said

7   replicated versions are generated by the multicast-capable distribution network;

8   and

9   forwarding said replicated versions of said control service information for reception

10   by each one of the group of said end user download devices.

1 28. The system of claim 27 wherein enabling the multicast-capable distribution network to

2   facilitate receiving said control service information from the centralized control apparatus

3   includes enabling the multicast-capable distribution network to facilitate receiving an

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4   unsolicited advertisement of said control service information from the centralized control

5   apparatus.

1   29. The system of claim 27 wherein the data processor program is further capable of enabling

2   the multicast-capable distribution network to facilitate:

3   configuring the multicast-capable distribution network to route said control service

4   information by downstream apparatuses within the multi-cast capable network in

5   response to receiving said control service information.

1   30. The system of claim 29 wherein the multicast-capable distribution network is statically

2   configured for routing said control service information along pre-defined paths within the

3   multi-cast capable distribution network.

1   31. The system of claim 29 wherein the multicast-capable distribution network is configured

2   for dynamically enabling access to said control service information by downstream

3   apparatuses within the multi-cast capable network.

1   32. The system of claim 26 wherein enabling the multicast-capable distribution network to

2   facilitate receiving the plurality of requests for reception of a file designated in said

3   control service information includes enabling the multicast-capable distribution network

4   to facilitate receiving said requests within a prescribed interval of time.

1   33. The system of claim 32 wherein the prescribed interval of time begins at a designated

2   time and extends for a designated duration.

1   34. The system of claim 32 wherein enabling the multicast-capable distribution network to

2   facilitate receiving the plurality of requests for reception of a file designated in said

3   control service information includes enabling the multicast-capable distribution network

4   to facilitate synchronization of the group of said end user download devices for enabling

5   reception of said requests by the multicast-capable distribution network within the

6   prescribed interval of time.

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1   35. The system of claim 34 wherein enabling the multicast-capable distribution network to

2   facilitate synchronization of the group of said end user download devices includes

3   enabling the multicast-capable distribution network to facilitate:

4   synchronizing a clock of each one of said end user download devices with a reference

5   time maintained by the multicast-capable distribution network; and

6   synchronizing a clock of a multicast server apparatus with the reference time

7   maintained by the multicast-capable distribution network.

1   36. The system of claim 26 wherein the data processor program is further capable of enabling

2   the distribution network to facilitate:

3   synchronization of the group of said end user download devices for enabling reception

4   of said requests by the multicast-capable distribution network within a prescribed

5   interval of time.

1   37. The system of claim 36 wherein:

2   enabling the multicast-capable distribution network to facilitate receiving the plurality

3   of requests for reception of a file designated in said control service information

4   includes enabling the multicast-capable distribution network to facilitate receiving

5   said requests within the prescribed interval of time; and

6   the prescribed interval of time beginning at a designated time and extending for a

7   designated duration.

1   38. The system of claim 26 wherein:

2   the multicast-capable distribution network is an Internet Protocol (IP) based

3   distribution network; and

4   enabling the multicast-capable distribution network to facilitate receiving the plurality

5   of requests for reception includes enabling the multicast-capable distribution

6   network to facilitate receiving an Internet Group Management Protocol IGMP

7   membership report from each one of the group of said end user download devices.

1   39. The system of claim 38 wherein the data processor program is further capable of enabling

2   the multicast-capable distribution network to facilitate:

3   receiving said control service information from a centralized control apparatus in

4   response to receiving the IGMP membership report from each one of the group of

5   said end user download devices.

1   40. The system of claim 26 wherein enabling the multicast-capable distribution network to

2   facilitate multicasting said offered content includes enabling the multicast-capable

3   distribution network to facilitate:

4   receiving an initially transmitted copy of said offered content from a centralized

5   control apparatus;

6   generating replicated versions of said offered content, wherein said replicated versions

7   are generated by the multicast-capable distribution network; and

8   forwarding said replicated versions of said offered content for reception by each one

9   of the group of said end user download devices.

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1 41. A data processor program product for facilitating multicasting of a file to a plurality of

2   end users, comprising:

3   a data processor program processable by a data processor of a multicast-capable

4   distribution network;

5   an apparatus from which the data processor program is accessible by the data

6   processor; and

7   the data processor program being capable of enabling the data processor to

8   facilitate

9   multicasting control service information for reception by a plurality of

10   end user download devices;

11   receiving a plurality of requests for reception of offered content

12   designated in said control service information, wherein said

13   requests are received from a group of said end user download

14   devices; and

15   multicasting said offered content for reception by each one of said end

16   user download devices in the group.

1 42. The data processor program product of claim 41 wherein enabling the data processor to

2   facilitate multicasting control service information includes enabling the data processor to

3   facilitate:

4   receiving said control service information initially transmitted from a centralized

5   control apparatus;

6   generating replicated versions of said control service information, wherein said

7   replicated versions are generated by the multicast-capable distribution network;

8   and

9   forwarding said replicated versions of said control service information for reception

10   by each one of the group of said end user download devices.

1 43. The data processor program product of claim 42 wherein enabling the data processor to

2   facilitate receiving said control service information from the centralized control apparatus

3   includes enabling the data processor to facilitate receiving an unsolicited advertisement of

4   said control service information from the centralized control apparatus.

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1   44. The data processor program product of claim 42 wherein the data processor program is

2   further capable of enabling the data processor to facilitate:

3   configuring the multicast-capable distribution network to route said control service

4   information by downstream apparatuses within the multi-cast capable network in

5   response to receiving said control service information.

1   45. The data processor program product of claim 44 wherein enabling the data processor to

2   facilitate configuring the multicast-capable distribution network includes enabling the

3   data processor to facilitate statically configuring the multicast-capable distribution

4   network for routing said control service information along pre-defined paths within the

5   multi-cast capable distribution network.

1   46. The data processor program product of claim 44 wherein enabling the data processor to

2   facilitate configuring the multicast-capable distribution network includes enabling the

3   data processor to facilitate dynamically enabling the multicast-capable distribution

4   network for accessing said control service information by downstream apparatuses within

5   the multi-cast capable network.

1   47. The data processor program product of claim 41 wherein enabling the data processor to

2   facilitate receiving the plurality of requests for reception of a file designated in said

3   control service information includes enabling the data processor to facilitate receiving

4   said requests within a prescribed interval of time.

1   48. The data processor program product of claim 47 wherein the prescribed interval of time

2   begins at a designated time and extends for a designated duration.

1   49. The data processor program product of claim 47 wherein enabling the data processor to

2   facilitate receiving the plurality of requests for reception of a file designated in said

3   control service information includes enabling the data processor to facilitate

4   synchronization of the group of said end user download devices for enabling reception of

5   said requests by the multicast-capable distribution network within the prescribed interval

6   of time.

1   50. The data processor program product of claim 49 wherein enabling the data processor to

2   facilitate synchronization of the group of said end user download devices includes

3   enabling the data processor to facilitate:

4   synchronizing a clock of each one of said end user download devices with a reference

5   time maintained by the multicast-capable distribution network; and

6   synchronizing a clock of a multicast server apparatus with the reference time

7   maintained by the multicast-capable distribution network.

1   51. The data processor program product of claim 41 wherein the data processor program is

2   further capable of enabling the distribution network to facilitate:

3   synchronization of the group of said end user download devices for enabling reception

4   of said requests by the multicast-capable distribution network within a prescribed

5   interval of time.

1   52. The data processor program product of claim 51 wherein:

2   enabling the data processor to facilitate receiving the plurality of requests for

3   reception of a file designated in said control service information includes enabling

4   the data processor to facilitate receiving said requests within the prescribed

5   interval of time; and

6   the prescribed interval of time beginning at a designated time and extending for a

7   designated duration.

1   53. The data processor program product of claim 41 wherein:

2   the multicast-capable distribution network is an Internet Protocol (IP) based

3   distribution network; and

4   enabling the data processor to facilitate receiving the plurality of requests for

5   reception includes enabling the data processor to facilitate receiving an Internet

6   Group Management Protocol IGMP membership report from each one of the

7   group of said end user download devices.

1   54. The data processor program product of claim 53 wherein the data processor program is

2   further capable of enabling the data processor to facilitate:

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3   receiving said control service information from a centralized control apparatus in

4   response to receiving the IGMP membership report from each one of the group of

5   said end user download devices.

1   55. The data processor program product of claim 41 wherein enabling the data processor to

2   facilitate multicasting said offered content includes enabling the data processor to

3   facilitate:

4   receiving an initially transmitted copy of said offered content from a centralized

5   control apparatus;

6   generating replicated versions of said offered content, wherein said replicated versions

7   are generated by the multicast-capable distribution network; and

8   forwarding said replicated versions of said offered content for reception by each one

9   of the group of said end user download devices.

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